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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,178	06/30/2000	Robert J. Deri	IL-10504	2665

7590
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04/23/2002

REC'D MAY 01 2002

EXAMINER

WOOD, KEVIN S

ART UNIT PAPER NUMBER

2874

DATE MAILED: 04/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/609,178

Applicant(s)

DERI ET AL.

Examiner

Kevin S Wood

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-6, 15-17, 19-20 is/are rejected.
- 7) ☐ Claim(s) 4, 7-14 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 December 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: Brian Healy

DETAILED ACTION

Response to Amendment

1. This action is responsive to amendment B filed 3/11/02. Claims 1-20 are pending in the application. Amendment B has not been entered.
2. Based on the applicants amendment, the rejections of claims 1, 10 and 13 under 35 U.S.C 112 are withdrawn.
3. Based on the discovery of new art, the examiner has reconsidered the finality of the rejection of the last Office action, therefore, the finality of that action is withdrawn. ←

Response to Arguments

4. Applicant's arguments have been fully considered, but are not persuasive. The applicant's primary argument is that the allowable material from claims 5 and 19, have been added to independent claims 1 and 16 respectively, making them allowable over the prior art.

The applicant states that claim 5 was indicated as allowed in the last Office action. This claim was rejected under 35 U.S.C. 102 on page 5 of the Office Action and was also indicated as rejected on the Office Action Summary form (PTO-326). On page 6 of the last Office Action, claim 5 was also mistakenly listed as being objected to, but allowable if rewritten in independent form including all of the limitations of the base claim. This indication of allowability was a typographical error. The examiner regrets any inconvenience that this error may have caused.

The applicant argues that claim 16 is now allowable over the prior art, after being amended to include the limitations of claim 19. Claim 19 was indicated as being allowable if rewritten in independent form including all of the limitations of the base claim in the last Office Action. However, the examiner has discovered new art discloses all of the limitations of claim 19.

Allowable Subject Matter

5. The indicated allowability of claims 6, 19 and 20 is withdrawn in view of the newly discovered reference(s) to Fukushima. Rejections based on the newly cited reference(s) follow.

6. Claims 4, 7-14, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application

being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-3, 5, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,243,178 to Suemura et al.

Referring to Claim 1, Suemura et al. discloses all of the limitations of the claimed invention in Fig. 4-7. Fig. 6 discloses a multiplexer that includes a diffraction grating (105), Fig. 7 discloses a demultiplexer that includes a diffraction grating (117), Fig. 4 and 5 disclose the combination of the multiplexer and demultiplexer where there are N inputs, N outputs, and N wavelengths.

Referring to Claim 2, Suemura et al. discloses all of the limitations of the claimed invention. The diffraction grating in the demultiplexer is augmented by a multiplexer, which is a directional coupler. The diffraction grating in the multiplexer is augmented by the demultiplexer, which is a wavelength selective device.

Referring to Claim 3, Suemura et al. discloses all of the limitations of the claimed invention. The multiplexer and demultiplexer are directional couplers.

Referring to Claim 5, Suemura et al. discloses all of the limitations of the claimed invention. The diffraction grating in the demultiplexer receives the outputs from the diffraction grating in the multiplexer.

Referring to Claim 15, Suemura et al. discloses a coupler (109) for combining the outputs of the multiplexer's diffraction grating.

9. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,208,692 to McMahon.

Referring to Claim 16, McMahon discloses all the limitations of the claimed invention. See Fig. 6, 7B, and 7C.

Referring to Claim 17, McMahon discloses all the limitations of the claimed invention. The Littrow Mount transmultiplexer in Fig. 7B is a directional coupler.

10. Claims 6, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,805,759 to Fukushima.

Referring to claim 6, Fukushima discloses all of the limitations of the claimed invention. Fukushima discloses a wavelength router comprising: at least one diffraction grating (22) which utilizes only N wavelengths to interconnect N inputs to N outputs in a fully non-blocking manner, a second diffraction grating (24) positioned to receive outputs from the first mentioned diffraction grating. The gratings (22,24) have the same diffraction constant, therefore the grating can be considered to be identical. See Fig. 4 and the respective portion of the specification.

Referring to claim 19, Fukushima discloses all of the limitations of the claimed invention. Fukushima discloses a wavelength router including: at least one diffraction grating (20) for receiving a number of inputs and for discharging a greater number of outputs, and means including a second grating (26) for combining at least a portion of the outputs. See Fig. 4, along with the respective portion of the specification.

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Referring to claim 20, Fukushima discloses all of the limitations of the claimed invention. Fukushima discloses a wavelength router including assemblies operatively connected to the diffraction gratings. Fukushima discloses re-direction optics (22,24) and collection optics (30,18). See Fig. 4, along with the respective portion of the specification.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S Wood whose telephone number is (703) 605-5296. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 307-0956.


Brian Healy
Primary Examiner

KSW
April 11, 2002

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Quality Assurance Specialists:

Don Hajec.....703-308-4075

Paul Dzierzynski.....703-308-4822

If the contents of the attached correspondence have any clerical omissions, e.g., missing references or pages, illegible text, or any other similar errors, please contact us at the number below. We will take appropriate action to expedite the necessary corrections. Also, if you have general questions concerning any application assigned to Technology Center 2800, please contact our Customer Service Center. Questions concerning the merits of the application must be directed to the Examiner in charge of the particular application, then to the supervisor if appropriate.

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Directors, Technology Center 2800

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Howard N. Goldberg	703/306-3431	2850/60
Janice A. Falcone	709/308-0530	2870/80